Title (en)

PROCESS FOR THE FORMATION OF GROOVES HAVING ESSENTIALLY VERTICAL LATERAL SILICIUM WALLS BY REACTIVE ION ETCHING

Publication

EP 0098318 B1 19870211 (DE)

Application

EP 82105957 A 19820703

Priority

EP 82105957 A 19820703

Abstract (en)

[origin: US4589952A] A method of making trenches having substantially vertical sidewalls in a silicon substrate using a three level mask comprising a thick photoresist layer, a silicon nitride layer and a thin photoresist layer. Openings are formed in the thin photoresist layer and silicon nitride layer by reactive ion etching in CF4. The openings are continued through the thick photoresist by etching in an atmosphere containing oxygen. The exposed surface of the silicon substrate is then etched in a CF4 atmosphere containing a low concentration of fluorine. Also disclosed is a method of making an electron beam transmission mask wherein the openings are made using the three level mask and reactive ion etching of silicon using the etching technique of the invention.

IPC 1-7

H01L 21/308; H01L 21/306; G03F 1/00; G03F 7/02

IPC 8 full level

H01L 21/302 (2006.01); **G03F 1/20** (2012.01); **G03F 7/09** (2006.01); **H01L 21/027** (2006.01); **H01L 21/3065** (2006.01); **H01L 21/308** (2006.01); **H01L 21/311** (2006.01)

CPC (source: EP US)

G03F 1/20 (2013.01 - EP US); **G03F 7/094** (2013.01 - EP US); **H01L 21/0271** (2013.01 - EP US); **H01L 21/3065** (2013.01 - EP US); **H01L 21/3081** (2013.01 - EP US); **H01L 21/31138** (2013.01 - EP US)

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Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0098318 A1 19840118; **EP 0098318 B1 19870211**; DE 3275447 D1 19870319; JP S5913329 A 19840124; US 4589952 A 19860520

DOCDB simple family (application)

EP 82105957 A 19820703; DE 3275447 T 19820703; JP 10946283 A 19830620; US 67046384 A 19841109